

CLAIMS

What is claimed is:

1. An audio switching device enabling a plurality of first audio signal processing devices to share at least one audio signal output device, the audio switching device comprising:

a plurality of first pre-processing devices connecting to the plurality of first audio signal processing devices, wherein each of the first pre-processing devices receives a first audio signal from the connected first audio signal processing device and adjusts the DC level of the first audio signal to a first predetermined value;

a first multitasking switch, which receives the first audio signals from the first pre-processing devices and selects one of the first audio signals for output; and

a first post-processing device, which receives the selected first audio signal and adjusts the DC level of the selected first audio to the first predetermined value.

2. The audio signal switching device of claim 1, wherein each of the first pre-processing devices contains a first DC level filter circuit to filter out the DC level of the first audio signal, and a first DC level adjusting circuit to receive the DC level filtered first audio signal from the first DC level filter circuit and to adjust the DC level of the first audio signal to the first predetermined value; and the first post-processing device contains a second DC level adjusting circuit to receive the selected first audio signal from the first multitasking switch and adjusts the DC level of the selected first audio signal to the first predetermined value, and a second DC level filter circuit to receive the DC level adjusted first audio from the second DC level adjusting circuit and to filter out the DC level of the first audio signal for output to the audio signal output device.

3. The audio signal switching device of claim 1, wherein the first DC level filter circuit contains a first capacitor and the second DC level filter circuit contains a second capacitor.

4. The audio signal switching device of claim 1, wherein the first multitasking switch is a multitasking switch chip.

5. The audio signal switching device of claim 1, wherein the first DC level adjusting circuit contains a first resistor and a second resistor, a first end of the first resistor in electrical communications with a high level, a second end of the first resistor in electrical communications with a first end of the second resistor, and a second end of the second resistor in electrical communications with a low level; and the second DC level adjusting circuit contains a third resistor and a fourth resistor, a first end of the third resistor in electrical communications with the high level, a second end of the third resistor in electrical communications with a first end of the fourth resistor, and a second end of the fourth resistor in electrical communications with the low level.

6. The audio signal switching device of claim 5, wherein the second end of the first resistor is further in electrical communications with the first DC level filter circuit and the first multitasking switch, and the second end of the third resistor is further in electrical communications with the second DC level filter circuit and the first multitasking switch.

7. The audio signal switching device of claim 5, wherein the resistances of the first resistor and the third resistor are the same, and those of the second resistor and the fourth resistor are the same.

8. The audio signal switching device of claim 5, wherein the resistance of the first resistor is greater than that of the second resistor and the resistance of the third resistor is greater than that of the fourth resistor when the first multitasking switch is a positive-voltage multitasking switch chip.

9. The audio signal switching device of claim 5, wherein the resistance of the

first resistor is equal to that of the second resistor and the resistance of the third resistor is equal to that of the fourth resistor when the first multitasking switch is a positive-negative-voltage multitasking switch chip.

10. The audio signal switching device of claim 5, wherein the high level is provided by a voltage regulator and the low level is the ground level.

11. The audio signal switching device of claim 1 also enabling a plurality of second audio signal processing devices to share at least one audio signal input device, the audio signal switching device further comprising:

a second pre-processing device, which connects to the audio signal input device, receives a second audio signal from the audio signal input device, and adjusts the DC level of the second audio signal to a second predetermined value;

a second multitasking switch, which receives the second audio signal from the second pre-processing device; and

a plurality of second post-processing devices for the second multitasking switch to selectively input the second audio signal, each of the second post-processing devices adjusts the DC level of the received second audio signal to the second predetermined value.

12. An audio signal switching method enabling a plurality of first audio signal processing devices to share one audio signal output device, the method comprising the steps of:

receiving a plurality of first audio transmitted from the first audio signal processing devices;

adjusting the DC levels of the first audio signals to a first predetermined value;

selecting one audio signal from the DC level adjusted first audio signals;

and

adjusting the DC level of the selected first audio signal to the first predetermined value.

13. The method of claim 12 further comprising the steps of:

filtering out the DC levels of the first audio signals before adjusting the DC level of the first audio signals; and

filtering out the DC level of the selected and DC level adjusted first audio signal after the DC level of the selected first audio signal is adjusted.

14. The method of claim 13, wherein the DC levels of the first audio signals are filtered by a first capacitor, and the DC level of the selected and DC level adjusted first audio signal is filtered by a second capacitor.

15. The method of claim 13, wherein the selected first audio signal is selected using a multitasking switch chip.

16. The method of claim 13, wherein the DC levels of the DC level filtered first audio signals are adjusted using a first resistor and a second resistor, a first end of the first resistor in electrical communications with a high level, a second end of the first resistor in electrical communications with a first end of the second resistor, and a second end of the second resistor in electrical communications with a low level; and the DC level of the selected first audio signal is adjusted using a third resistor and a fourth resistor, a first end of the third resistor in electrical communications with the high level, a second end of the third resistor in electrical communications with a first end of the fourth resistor, and a second end of the fourth resistor in electrical communications with the low level.

17. The method of claim 16, wherein the resistance of the first resistor is equal to that of the third resistor, and the resistance of the second resistor is equal to that of the fourth resistor.

18. The method of claim 16, wherein the resistance of the first resistor is greater than that of the second resistor and the resistance of the third resistor is greater than that of the fourth resistor when the first multitasking switch is a positive-voltage multitasking switch chip.

19. The method of claim 16, wherein the resistance of the first resistor is equal to that of the second resistor and the resistance of the third resistor is equal to that of the fourth resistor when the first multitasking switch is a positive-negative-voltage multitasking switch chip.

20. The method of claim 16, wherein the high level is provided by a voltage regulator and the low level is the ground level.

21. The method of claim 12 also enabling a plurality of second audio signal processing devices to share at least one audio signal input device, the audio signal switching device further comprising the steps of:

receiving a second audio signal transmitted from the audio signal input device;

adjusting the DC level of the second audio to a second predetermined value;

selecting one of the second audio signal processing devices for entering the DC level adjusted second audio signal; and

adjusting again the DC level of the DC level adjusted second audio signal to the second predetermined value after selecting one of the second audio signal processing devices.